REMARKS/ARGUMENTS

Claims Status

Claims 1-9, 12, 14 and 15 are pending. Claims 1-4 are withdrawn pursuant to a previous Restriction Requirement. Claim 5 is currently amended to include the subject matter of original claims 10, 11 and 13, as well as to include subject matter from paragraphs [0030], [0034] and [0037] of the specification. Accordingly, claims 10, 11 and 13 have been canceled without prejudice. Claims 14 and 15 are added and find support in amended claim 5, namely paragraphs [0030] and [0037] of the specification. No new matter is believed to have been entered.

Information Disclosure Statement

The Office has noted that two of the references included in the IDS filed on November 6, 2007, have not been considered because they are not in English and there is no explanation as to the relevance of such references.

Applicants submit that the IDS filed on November 6, 2007 states that "The applicant(s) wish to make of record the reference(s) cited in the attached German Office Action (with English Translation) and listed on the attached form PTO-1449." Accordingly, as the "relevance" of the non-considered references was submitted with the form PTO-1449 in the form of the English Translation of the German Office Action, Applicants respectfully request that the Examiner consider the non-considered references and initial next to the "AO" and "AW" references upon such consideration.

§103(a) Rejections

The claimed invention has been rejected as follows: (i) claims 5, 8, 9, 12 and 13 are rejected as obvious in view of the combination of *Grubb* (US 2002/0090823) and *Guyomard*

(US 4,316,939); (ii) claim 6 is rejected as obvious in view of the combination of *Grubb*, *Guyomard* and *Springer* (US 6,537,610); (iii) claim 7 is rejected as obvious in view of the combination of *Grubb*, *Guyomard*, *Springer* and "*Powder Coatings Made Easy*"; and (iv) claims 10 and 11 are rejected as obvious in view of the combination of *Grubb*, *Guyomard* and *Dutheil* (US 5,891,515). Applicants respectfully traverse these rejections.

The claimed invention relates to a method of coating a high durability spring wherein the resulting coated spring has superior corrosion and chipping resistance. Such a superior spring is obtained by a method of coating a spring with high durability, which comprises: (a) an undercoating step of making an epoxy resin powder coating, which comprises 75 wt % or more of zinc, adhere to a surface of said spring; (b) a topcoating step of making an epoxy polyester resin powder coating adhere to an undercoat film composed of said epoxy resin powder coating; and (c) a baking step of baking said undercoat film and said epoxy polyester resin powder coating adhered to said undercoat film, wherein (i) said epoxy resin powder coating comprises 0.2 to 5 wt% of block isocyanate, (ii) a thickness of the undercoat film is 50 μm or more, (iii) said epoxy polyester resin powder coating comprises at least one of a color pigment and an extender pigment, and (iv) a thickness of a topcoat film comprising the epoxy polyester resin powder coating is 200 to 1200 μm (see claim 5).

In contrast to the claimed invention, primary reference *Grubb* discloses a corrosion and chip resistant coating for high strength steel (Abstract) wherein 43-71 wt% of zinc is present in the zinc-loaded epoxy (inner) coating (see [0014] and Examples)[1]. *Grubb* also discloses a dual coated embodiment wherein the inner (zinc-loaded) coating is 38.1-76.2 μm thick (equivalent to 1.5-3 mils, see [0016]) and the outer (zinc-free) coating is 254-381 μm thick (equivalent to 10-15 mils, see [0016]).

[1] The zinc content is recited as at least 75 phr in [0014] and is limited to 250 phr in the Examples. Upon conversion to wt%, this equates to 43-71 wt% zinc in the zinc-loaded epoxy (inner) coating.

Accordingly, *Grubb* does not provide a *prima facie* case of obviousness based on overlapping/touching ranges of the claimed invention's undercoat film containing 75 wt% or more of zinc (see MPEP 2144.05). Moreover, *Grubb* does not suggest the claimed thickness of the undercoat film (i.e., 50 μm or more (claim 5), or 60 μm or more (claim 14)) and/or the claimed thickness of the topcoat film (i.e., 200-1200 μm (claim 5), or 400-1200 μm (claim 15)) for the following reasons. *Grubb* discloses a "preferred" working inner/under coat film thickness range of 38.1-76.2 μm and a "preferred" working outer/top coat film thickness range of 254-381 μm. Therefore, one skilled in the art would have no motivation to look to inner/under coat film thicknesses above 76.2 μm and/or outer/top coat film thicknesses above 381 μm. Furthermore, courts have held that where, as here, the prior art disclosure suggests the outer limits of the range of suitable values, and that the optimum resides within that range, and where there are indications elsewhere that in fact the optimum should be sought within that range, the determination of optimum values outside that range may not be obvious (*In re Sebek*, 465 F.2d 902, 175 USPQ 93, 95 (CCPA 1972)). Thus, without any motivation to consider inner/under coat film thicknesses above 76.2 μm and/or outer/top coat film thicknesses above 381 μm, Applicants' claimed thicknesses of 50 or 60 μm or more, and 200-1200 or 400-1200 μm, respectively, are not rendered obvious by *Grubb*.

With respect to the secondary references, Applicants note the following. Even though *Guyomard* discloses anti-corrosive coatings (Abstract), *Guyomard* does not disclose or suggest anti-chipping coatings. *Springer* is relied upon by the Office merely for its disclosure of an intermediate heating step "similar" to that found in Applicants dependent claim 6. *Powder Coatings Made Easy* is not concerned with dual-layer constructed coatings, and *Dutheil* does not describe or suggest that corrosion and chip resistance can be attained in a balanced manner via the addition of a predetermined amount of block isocyanate.

Accordingly, any combination of these secondary references with *Grubb*, (1) fails to fulfill the zinc-content and coating thickness deficiencies of *Grubb*, (2) fails to disclose or suggest the *balanced* corrosion and chip resistance effects obtained by the claimed invention, and (3) fails to disclose or suggest the specific combination of elements and corresponding amounts of those elements in order to obtain such balanced effects.

As such, any combination of the cited references does not render obvious the claimed invention and Applicants request withdrawal of the obviousness rejections.

Conclusion

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections, withdrawal of the restriction requirement, and passage of this case to issue.

Respectfully submitted,

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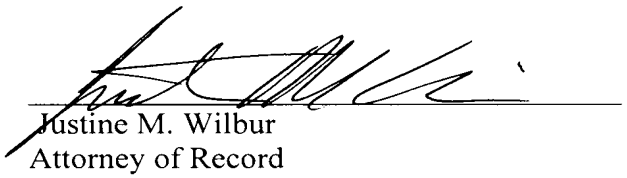

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